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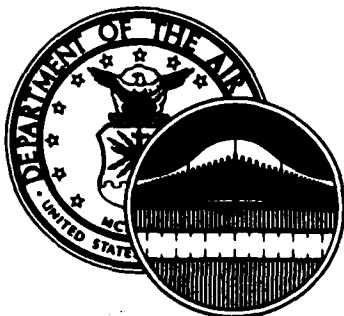
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UNITED STATES AIR FORCE

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# OCCUPATIONAL SURVEY REPORT



EDUCATION, TRAINING, AND INSTRUCTIONAL SYSTEMS  
CAREER LADDERS

AFSC 751X0, 751X2, AND 751X3, Volume I

AFPT 90-751-408

VOL. I OF IV

MARCH 1981

OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT CENTER  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78148

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## PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Education and Training career ladders 751X0, 751X2, and 751X3. The project was undertaken at the request of the Air Force Manpower and Personnel Center (AFMPC) and was directed by USAF Program Technical Training, Volume II, dated October 1979. Authority for conducting occupational surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The United States Air Force occupational analysis program originated in 1956 when initial research was undertaken by the Air Force Human Resources Laboratory to develop the methodology for conducting occupational surveys. In 1967, Air Training Command (ATC) established an operational analysis program which initially produced 12 enlisted career ladder surveys annually. The program was expanded in 1972 to produce surveys of 51 career ladders each year and again in 1976 to include the survey of officer utilization fields, to permit special applications projects, and to support interservice or joint service occupational analyses.

The survey instrument used in the present project was developed by Second Lieutenant Andrew D. Mellors, Inventory Development Specialist. Mr. Guy B. Cole directed the analysis of this three-specialty study, analyzed the 751X3 survey data, and wrote this volume of the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78148.

Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, formerly of the Manpower and Personnel Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Computer Programming Branch, Technical Services Division, AFHRL.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78148.

This report has been reviewed and is approved.

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## SUMMARY OF RESULTS

1. Survey Coverage: Inventory booklets were administered worldwide to members of the Education (751X0), Training (751X2), and Instructional Systems (751X3) career ladders during the spring and summer of 1980. The survey results are based on responses from 168 (63 percent) of the 751X0 incumbents; 1,502 (78 percent) of the 751X2 incumbents; and 101 (61 percent) of the 75133 and 75173 incumbents. In addition, responses were received from 74 Education and Training Superintendents (75193) representing almost all of the personnel assigned.

2. Job Structure: The job structure analysis of these three career ladders specifically differentiated between jobs performed by personnel in each ladder. Although there was some overlap in isolated instances, personnel in each of the three ladders clearly performed significantly different tasks.

3. 751X0 Implications: The Education career ladder (751X0) essentially performs administrative functions. Thus, it does not appear to be a viable ladder and should be considered for deletion. The 751X0 functions currently being performed should be accomplished by 702X0B personnel.

4. 751X2 Implications: The Training career ladder (751X2) is supported by task data. Only minor problems concerning dissatisfaction by some personnel assigned to MMICS organizations were identified.

5. 751X3 Implications: A number of problems were identified in the Instructional Systems career ladder (751X3). Essentially, these problems centered around the low utilization or misutilization of ISD personnel, with resulting low job satisfaction. Several possible reasons for these problems have been explored and discussed in the report. A utilization and training workshop to further explore the problems and determine a viable solution is suggested. Several possible alternatives for changes in the utilization of ISD resources are discussed in the IMPLICATIONS section of this report.

6. Training: Training issues pertaining to individual ladders are discussed in each individual report. However, most training issues are contingent upon the resolution of classification issues brought up, especially in the 751X0 and 751X3 ladders.

OCCUPATIONAL SURVEY REPORT OF THE  
EDUCATION, TRAINING, AND INSTRUCTIONAL  
SYSTEMS CAREER LADDER  
(AFSCs 751X0, 751X2, AND 751X3)

INTRODUCTION

This is a report of an occupational survey of the Education (751X0), Training (751X2), and Instructional Systems (751X3) career ladders. This survey was conducted at the request of the Classification Branch of the Air Force Manpower and Personnel Center (AFMPC) to assist in the evaluation of the present classification structure of the 751XX career field. In order that tasks performed by members of all three ladders could be compared, a single combined survey instrument was developed and administered to personnel in all three ladders. The results of this survey are presented in four volumes. This volume summarizes the overall data from all respondents and concentrates on similarities and differences across the three specialties. Volume II presents the results of the analyses of survey responses by personnel assigned to the Education career ladder (751X0); Volume III discusses the results for the Training career ladder (751X2); and Volume IV discusses the Instructional Systems career ladder (751X3).

Objectives

This report examines the job structure of the three specialties, concentrating primarily on the overlap of tasks and jobs performed across specialties. In addition, since Education and Training Superintendents (AFSC 75193) can supervise personnel from all three ladders, an analysis of tasks performed and background information for these personnel is also included.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this survey was USAF Job Inventory AFPT 90-751-408, dated January 1980. As a starting point, tasks from previous inventories of the 751X0, 751X2, and 751X3 career ladders were reviewed and revised through comprehensive research of publications and directives and through interviews with training and classification personnel. The resulting task list was further modified and refined through personal interviews with 25 subject matter specialists from eight operating locations. These locations were selected to provide a comprehensive coverage of the various kinds of jobs and/or organizations in which personnel from these career ladders work. This process resulted in a final inventory containing 499 tasks and a background section that included a variety of information about the respondents, such as grade, Total Active Federal Military Service (TAFMS), Time in the Career Field (TICF), duty title, organization, and job interest.

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### Job Inventory Administration

During the period January through May 1980, consolidated base personnel offices in operational units worldwide administered the inventory booklets to job incumbents holding 751X0, 751X2, and 751X3 DAFSC's. These job incumbents were selected from a computer-generated mailing list obtained from AFMPC personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Each individual who participated in the survey first completed an identification and biographical information section and then checked those tasks performed in his or her current job. After checking all tasks performed, each incumbent then rated each of the tasks on a nine-point scale indicating the relative time spent on that task as compared to all other tasks checked. The relative time spent ratings range from one (very small amount of time spent) through five (about average time spent) to nine (very large amount of time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100. This procedure provides a basis for comparing tasks not only in terms of percent members performing but also in terms of average percent time spent on a task or any group of tasks.

### Data Processing and Analysis

Task responses and background information from each returned inventory booklet were optically scanned. Biographical information was keypunched onto disk tapes and entered directly into a UNIVAC 1108 computer. Once both sets of data were entered into the computer, they were merged to form a complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) techniques were then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. These job descriptions reflect: a) percent members performing each task; b) the average percent time spent by only those members performing each task; c) the average percent time spent by all members; and d) the cumulative average percent time spent by all members for each task in the inventory.

### Task Factor Administration

In addition to completing a job inventory booklet, selected senior personnel from each specialty were requested to complete a second booklet, rating the difficulty of each of the tasks in the inventory on a relative scale of one through nine, with one reflecting an extremely low difficulty, five average difficulty, and nine extremely high difficulty. Difficulty is defined as the length of time needed to learn to do each task satisfactorily, as compared to other tasks within the inventory. Of the 150 task difficulty

booklets mailed to the field, 124 usable booklets were returned. Of these, 41 were received from DAFSC 751X0 personnel, 49 from DAFSC 751X2 personnel, and 34 from DAFSC 751X3 personnel. An analysis of ratings by members in all three ladders combined was first undertaken to determine if there were significant variance between task difficulty ratings assigned to the same tasks by personnel in each of the three ladders. Although many tasks were rated similarly by members of all three specialties, there were some obvious differences in ratings by members of the different ladders. Generally, raters from each ladder tended to rate the more critical tasks of their specialty somewhat higher than did members of the other specialties, indicating three distinct policies regarding task difficulty. Therefore, raters were separated on the basis of their DAFSC and separate task difficulty means were computed for each ladder. The resulting interrater reliability (as assessed through components of variance of standard group means) for the raters within each ladder indicated acceptable agreement among members of each ladder and thus separate task difficulty indices are reported for each specialty (see Vols. II, III, and IV).

### Survey Sample

Personnel were selected to participate in this survey so as to insure an accurate representation across all MAJCOM's and paygrade groups within each of the three ladders surveyed. Table 1 reflects the major command distribution of personnel assigned to each of the three ladders as of July 1980. Also shown is the MAJCOM distribution of 9-skill level personnel (75193). Table 2 reflects the paygrade distribution of each ladder. Overall, each ladder's final survey sample was found to be representative of the overall career ladder population in terms of both MAJCOM and paygrade distributions.

Table 3 reflects the experience level (TAFMS) of each ladder. As shown, all three ladders showed high percentages of personnel with over 97+ months time in service, with both the 751X2 and 751X3 ladders having over 85 percent in this category. Only 66 percent of 751X0 personnel, however, were in their third or later enlistment.

Table 4 shows the levels of specialized experience within each ladder based on the Time in the Career Field (TICF) of respondents. Note that only in the Training career ladder (751X2) do the majority of the respondents have over four years of experience in the specific duties and responsibilities of the career ladder. The level of career ladder experience is especially low in the Instructional Systems ladder (751X3), with 70 percent having less than four years experience in Instructional Systems development.



TABLE 1

## COMMAND DISTRIBUTION OF SURVEY SAMPLE

COMMAND	AFS 751X0		AFS 751X2		AFS 751X3		AFS 75193	
	PERCENT ASSIGNED	PERCENT SAMPLED	PERCENT ASSIGNED	PERCENT SAMPLED	PERCENT ASSIGNED	PERCENT SAMPLED	PERCENT ASSIGNED	PERCENT SAMPLED
SAC	25	21	18	21	9	9	11	5
ATC	16	20	16	16	21	25	20	23
TAC	16	18	21	21	39	38	23	23
MAC	15	17	10	10	18	18	11	22
USAFE	8	11	9	10	6	3	9	5
PACAF	7	3	4	4	1	1	1	0
AFSC	3	4	4	5	2	4	0	3
AFCC	-	-	8	8	-	-	5	3
MPC	-	-	-	-	-	-	5	5
OTHER	10	6	10	5	4	2	15	11
	100%	100%	100%	100%	100%	100%	100%	100%

TOTAL 751X0 ASSIGNED 267  
 TOTAL 751X0 SAMPLED 168  
 PERCENT OF 751X0 SAMPLED 63%

TOTAL 751X2 ASSIGNED 1,920  
 TOTAL 751X2 SAMPLED 1,502  
 PERCENT OF 751X2 SAMPLED 78%

TOTAL 751X3 ASSIGNED 165  
 TOTAL 751X3 SAMPLED 101  
 PERCENT OF 751X3 SAMPLED 61%

TOTAL 75193 ASSIGNED \*  
 TOTAL 75193 SAMPLED 74

\*ACCURATE 75193 ASSIGNED DATA WAS NOT AVAILABLE AT THE TIME OF THIS SURVEY

TABLE 2  
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE VERSUS DUTY AFSC

PAYGRADE	751X0		751X2		75133/73		75193	
	PERCENT OF ASSIGNED	PERCENT OF SAMPLED	PERCENT OF ASSIGNED	PERCENT OF SAMPLED	PERCENT OF ASSIGNED	PERCENT OF SAMPLED	PERCENT OF ASSIGNED	PERCENT OF SAMPLED
AIRMEN	19	10	*	*	13	14	0	0
E-4	25	20	11	12	37	32	0	0
E-5	26	33	36	38	34	29	0	5
E-6	13	16	34	34	16	20	0	37
E-7	17	20	17	15	0	5	100	54
E-8	*	1	0	1	0	0	0	4
E-9	*	*	0	0	0	0		

\* INDICATES LESS THAN .5 PERCENT

TABLE 3  
TAFMS DISTRIBUTION OF SURVEY SAMPLE

	<u>751X0</u>	<u>751X2</u>	<u>751X3</u>	<u>75193</u>
FIRST ENLISTMENT (1-48 MONTHS)	15%	1%	2%	0
SECOND ENLISTMENT (49-96 MONTHS)	19%	14%	10%	0
CAREER (97+ MONTHS)	<u>66%</u>	<u>85%</u>	<u>88%</u>	<u>100%</u>
	100%	100%	100%	100%

TABLE 4  
DISTRIBUTION OF SURVEY SAMPLE BY TIME IN CAREER FIELD (TICF)

<u>TIME IN CAREER FIELD</u>	<u>751X0</u>	<u>751X2</u>	<u>75133/73</u>	<u>75193</u>
1-48 MONTHS	55%	42%	70%	8%
49-96 MONTHS	23%	37%	25%	18%
97+ MONTHS	22%	21%	5%	74%

## JOB STRUCTURE ANALYSIS

A key aspect of the USAF occupational analysis program is to examine the job structure of specialties -- what people are actually doing in the work environment rather than how official career field documents say they are organized. This analysis is made possible by the Comprehensive Occupational Data Analysis Programs (CODAP). These programs generate a number of statistical products used in the analysis of a specialty. A primary product used to analyze the specialty structure is a hierarchical clustering of all jobs based on the similarity of tasks performed and the time spent performing these tasks. This process permits the identification of the major types of work performed in the occupations (specialties), which are then analyzed in terms of job descriptions and background data. The information is then used to examine the accuracy and completeness of present career field documents (AFR 39-1 Specialty Descriptions, Specialty Training Standards, etc.), and to formulate an understanding of current utilization patterns.

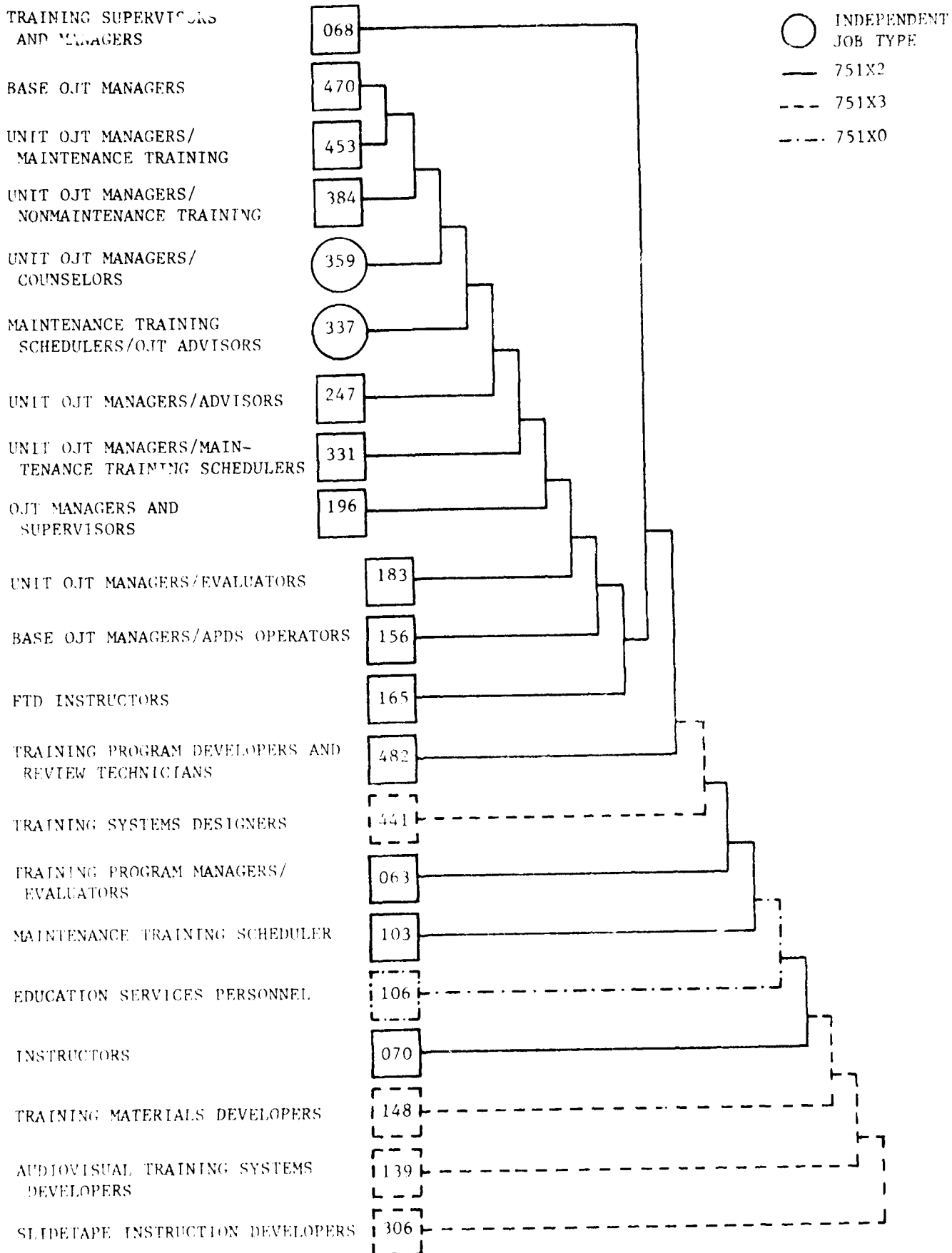
The basic identifying group used in the hierarchical job structure is the Job Type. A job type is a group of individuals who perform many of the same tasks and who spend similar amounts of time performing these tasks. When there is a substantial degree of similarity between different job types, they are grouped together in a Cluster. Finally, there are often specialized jobs that are too dissimilar to be grouped into any cluster. These unique groups are labeled Independent Job Types.

### Job Structure Overview

The job structure analysis of the Education, Training, and Instructional Systems career ladders identified a large variety of jobs being performed. However, due to the large number of 751X2 personnel in the final survey sample and the variety of organizations conducting or managing OJT functions, 751X2 jobs dominated the overall job structure analysis of the three specialties.

Figure 1 is a schematic diagram showing the groups identified in the overall analysis and the primary DAFSC orientation of these groups. Of the 1,856 respondents to the survey, 1,502 were Training personnel (751X2), 168 were Education personnel (751X0), 101 were Instructional Systems personnel (751X3), and 74 were Education and Training Superintendents (75193). The clusters and job types shown in Figure 1 include jobs which were specifically identified with one of the three career ladders. Eighty-four percent of all 751X0 respondents grouped together in one major Education Services cluster; 87 percent of all 751X2 respondents grouped together in 16 clusters and independent job types; and 67 percent of the 751X3 respondents grouped in six job groups. Most Education and Training Superintendents (75193) grouped within many of the job groups along with career ladder members, primarily in those groups involved with supervision and management. Most of the remaining respondents performed jobs that were so heterogeneous and so unique that they did not group with any of the clusters or job type groups in the job type analysis.

FIGURE 1  
TRAINING JOB STRUCTURE



The following paragraphs contain brief summaries of the primary kinds of jobs identified in the grouping analysis. To facilitate a better understanding of the job type analysis as it pertains to the kinds of jobs identified, the clusters and independent job types have been grouped by career ladders and functional titles within career ladders rather than as listed in Figure 1.

#### Education Career Ladder AFS (751X0)

In the job type analysis, 84 percent of all 751X0 survey respondents grouped into one cluster--Education Services Personnel. Although this cluster was divided into four job type groups, tasks performed were quite homogeneous. Primarily, the tasks performed pertained to providing advice and assistance to personnel pursuing various educational goals. Some of the most common tasks performed by this group included:

- Advise individuals on Community College of the Air Force (CCAF) programs
- Advise individuals on completing Authority for Tuition Assistance-Education Service program forms (AF Form 1227)
- Initiate individual record education services program forms (AF Form 186)
- Advise individuals on available off duty education programs
- Assist applicants in enrolling in Extension Course Institute (ECI) courses
- Assist individuals in preparing request for Community College of the Air Force transcript forms (AF Form 2099)
- Advise individuals on education allowances under Veteran's Administration (VA) programs
- Advise individuals on Extension Course Institute (ECI) courses record interviews, and action taken, on individual record education services program forms (AF Form 186)
- Assist applicants in enrolling in off duty classes
- Advise individuals on the Veteran Education Assistance Program (VEAP)

Personnel in this cluster performed an average of 82 tasks. Almost 60 percent of their time was spent on tasks within two duties--(1) performing education counseling and (2) enrolling personnel in education programs and courses. The average paygrade was E-5. In general, Education personnel found their job interesting and felt that their talents and training were well utilized. Sixty-two percent indicated that they would or probably would reenlist.

Review of the four job type groups within this cluster revealed that differences in tasks performed within this group were generally related to the experience levels of the respondents. These job type groups are listed below:

- A. Education Advising and Enrollment Personnel (N=54)
- B. Base Education Services NCO's (N=64)
- C. Education Administrative Specialists (N=7)
- D. MAJCOM Education Personnel (N=5)

The personnel in the Education Advising and Enrollment group and the Base Education Services NCO group represent over 90 percent of the cluster respondents. These personnel perform a large number of tasks, including those listed above as typical of the cluster. In addition, members of the Base Education Services NCO group perform a number of supervisory and management tasks, such as:

- Plan work assignments
- Develop work methods and procedures
- Interpret policies, directives, or procedures for subordinates
- Counsel personnel on personal or military related problems
- Direct maintenance and utilization of equipment.

Almost 60 percent of the members of the Education Advising and Enrollment group are 5-skill level or below and have an average of 54 months in the career field. Members of the Base Education Services NCO group are considerably more experienced, with an average of 72 months in the career ladder. In addition, over 78 percent of this group were E-5s or above. The Education Administrative Specialists group included a small group of relatively inexperienced personnel who performed many of the same tasks as listed above for the cluster. They do not perform, however, as large a variety of tasks as do members of the other job type groups. This is understandable since a majority of these individuals have less than two years in the career field. The small group of MAJCOM Education Personnel are assigned to major command staff functions. Although two of these five individuals hold 75193 positions, all perform tasks associated with staff supervision over education programs. (For additional information concerning the career ladder structure of the 751X0 AFS, see Vol. II of this study.)

### Training Career Ladder (AFS 751X2)

The outline below provides a brief overview of the 16 clusters and independent job type groups identified within the Training career ladder. The 16 groups have been broken down into seven major categories for ease of presentation.

#### I. UNIT OJT MANAGERS (57%)

- a. Unit OJT Managers (Maintenance Training) (GRP453, N=272)
- b. Unit OJT Managers (GRP384, N=377)
- c. Unit OJT Managers/Counselors (GRP359, N=14)
- d. Unit OJT Managers/Advisors (GRP247, N=56)
- e. Unit OJT Managers/Maintenance Training Schedulers (GRP331, N=61)
- f. Unit OJT Managers/Evaluators (GRP183, N=32)

#### II. BASE OJT MANAGERS (14%)

- a. Base OJT Managers (GRP470, N=152)
- b. Base OJT Managers/APDS Operators (GRP156, N=55)

III. TRAINING SCHEDULERS (7%)

- a. Maintenance Training Schedulers/OJT Advisors (GRP337, N=11)
- b. Maintenance Training Schedulers (GRP103, N=78)

IV. INSTRUCTORS (7%)

- a. FTD Instructors/Advisory Service (GRP165, N=52)
- b. Instructors (GRP070, N=49)

V. OJT PROGRAM SUPERVISORS (6%)

OJT Managers and Supervisors (GRP196, N=76)

VI. TRAINING PROGRAM MANAGERS (6%)

- a. Training Supervisors and Managers (GRP068, N=46)
- b. Training Program Managers/Evaluators (GRP063, N=44)

VII. PROGRAM DEVELOPMENT AND REVIEW (1%)

Training Program Developers and Review Technicians (GRP482, N=17)

Overall, the Training Specialty is comprised of a variety of jobs specializing in the various aspects of managing, supervising, accomplishing, and documenting on-the-job training within the Air Force. The seven kinds of jobs identified in the above groups represent a general characterization of job groups by major functions. Although some of the larger groups contain some individual jobs which vary somewhat in overall content, as a whole, each title is appropriate for a major percentage of the group. Although there were a few members from the other specialties (AFS 751X0 and AFS 751X3) included in some of these groups (primarily in the supervisory or managerial groups under Category VI and VII), the numbers were so small as to be insignificant for job typing purposes. (For a more complete discussion concerning these job groups, see Vol. III of this study).

GROUP I: UNIT OJT MANAGERS. It is understandable that the vast majority of the 751X2 population serve as OJT managers. Although the number of tasks vary in these jobs, many of the primary tasks are the same. The essential differences between the various OJT groups are the specializations. For example, the first group (Unit OJT Managers (Maintenance Training)), managed OJT programs within maintenance organizations using the MMICS systems. The second group, (Unit OJT Managers), included personnel who did not use the MMICS system or at least were not involved in the operation of the computer. The third group, although serving as Unit OJT managers, also spent significant amounts of time in the performance of educational counseling functions. Unit OJT Managers/Advisors primarily advised supervisors on the policies and procedures of OJT. The Unit OJT Managers/Maintenance Training Schedulers primarily concentrated on scheduling while Unit OJT Managers/Evaluators performed a number of tasks concerned with the evaluation of OJT programs.



GROUP II: BASE OJT MANAGERS. These two functional groups included personnel who were Base OJT managers, primarily involved in reviewing and reporting on the progress and regulatory compliance of the base OJT function. The primary tasks typical of these groups included:

- Conduct OJT staff visits
- Review preparation of AF Form 2095 or 2096
- Evaluate OJT supervisors
- Evaluate OJT trainees
- Develop procedures for OJT programs
- Maintain files of staff assistance visits
- Update data in advanced personnel data system (APDS)
- Load data into advanced personnel data system (APDS)
- Extract data from advanced personnel data system (APDS)

Basically, the difference between the two functional groups was that the Base OJT Managers (GRP470) perform a relatively large number of tasks associated primarily with the OJT program management while members of the Base OJT Managers/APDS Operators group (GRP156) were more involved in the clerical aspects of OJT management and spent a great deal of their time on tasks associated with maintenance of files and records, and operating the APDS. Over half of the members of the latter group were 3-skill level personnel, suggesting that most were relatively new to the career field and were still in upgrade training.

GROUP IV: TRAINING SCHEDULERS. These two groups were primarily involved in the scheduling of maintenance training functions. Individuals in the smaller of these two groups, Maintenance Training Schedulers/OJT Advisors (GRP337) spent a substantial amount of their time on OJT advisory functions in addition to performing the scheduling. Members of the larger group Maintenance Training Schedulers (GRP103) spent a considerably larger portion of their time in scheduling maintenance training, with little time devoted to anything else.

GROUP IV: INSTRUCTORS. Two groups of instructors were identified in this career ladder. One group (GRP165) of 52 personnel included primarily FTD or advisory service instructors. These personnel, in addition to instructor duties, also performed a number of OJT functions, common to other OJT groups. The other group, composed of 49 instructors (GRP070), are engaged almost exclusively in classroom instruction tasks and primarily served as instructors at the Technical Training Center.

GROUP V: OJT PROGRAM SUPERVISORS. This group includes a number of senior NCO's engaged in the supervision and management of wing level on-the-job training programs. Although a majority are 7-skill level training specialists, 24 percent are superintendents (9-skill level). Typically, these personnel supervise one or more subordinates. Tasks most common to members of this group include:

- Prepare ATRs
- Supervise training technicians (AFSC 75172)
- Interpret policies, directives, or procedures for subordinates
- Implement Maintenance Management Information and Control Systems (MMICS) training
- Develop and improve methods or procedures
- Plan work assignments
- Develop work methods or procedures

GROUP VI: TRAINING PROGRAM MANAGERS. There were two groups identified in the cluster analysis which were primarily managerial in nature. Both groups included personnel with an overall grade of E-7. The first group (GRP068) was primarily concerned with direct supervision of personnel in the accomplishment of training or education functions. Eighty-seven percent of these personnel supervise one or more subordinates. Although a majority supervise OJT functions, a few are supervisors of Education or ISD functions. One-third of these personnel are 9-skill level. The second group (GRP063) is comprised primarily of personnel at MAJCOM level. Seventy percent are from the 751X2 career ladder and 23 percent are Superintendents (75193), with five percent ISD (751X3) and three percent Education (751X0) personnel. Essentially these personnel are staff level NCOIC's working at MAJCOM level. Their primary tasks include:

- Evaluation of training programs and methods
- Evaluation of inspection reports
- Evaluation of training techniques
- Evaluation of administrative forms, files or procedures and
- Interpretation of policies, directives or procedures for subordinates

GROUP VII: PROGRAM DEVELOPMENT AND REVIEW. Personnel in this group were senior personnel with an average grade of E-6. Members of each of the three career ladders were represented in this group. The majority (59 percent) were Training personnel (751X2), six percent were Education personnel (751X0), and 23 percent were members of the Instructional Systems ladder (751X3). The remaining 12 percent were Superintendents (75193). These personnel serve as supervisors or evaluators of instruction at technical schools, FTD's, or within Unit OJT or Training management offices. Typical tasks include:

- Evaluate course outlines or plans
- Evaluate training techniques, training aids, training methods, and overall training programs
- Determine equipment or facilities needed to support instruction
- Evaluate effectiveness of instructional media
- Counsel personnel on personal or military related problems

### Instructional Systems Career Ladder (AFS 751X3)

Basically, six job groups were identified within the Instructional Systems ladder:

- A. Training Program Development Chiefs (SPC302, N=4)
- B. Training Systems Designers (GRP441, N=17)
- C. Training Materials Developers (GRP148, N=18)
- D. Audiovisual Training Systems Developers (GRP139, N=16)
- E. Slidetape Instruction Developers (SPC306, N=10)
- F. Non-ISD Training Program Supervisors (SPC301, N=3)

A. Training Program Development Chiefs. As senior ISD technicians, the four personnel in this group perform the full range of ISD functions in addition to performing a number of supervisory tasks. Three of these personnel have the T prefix and work in Air Training Command technical training schools. One worked in a training management office overseas. All found their job interesting and felt that their talents and training were well utilized.

B. Training Systems Designers. This group of 17 Instructional Systems personnel performed tasks encompassing all steps of the ISD process. Although approximately half supervised one or more subordinates, the primary functions were the design and development of training programs. Personnel in this group worked primarily at wing level, with a few at squadron level. Generally, these personnel found their job interesting and their talents and training used fairly well or better. These personnel averaged 177 months in the Air Force and 42 months in the career field. Their average grade was 6.1.

C. Training Materials Developers. The 18 members of this group performed approximately half the average number of tasks performed by the Training Systems Designers group. Although substantial percentages of this group performed tasks representative of all five ISD steps, the primary functions involved the planning, developing, and validating of instruction.

D. Audiovisual Training Systems Developers. This group of ISD personnel is much less homogeneous in tasks performed than members of the previous groups discussed. Although all of these individuals are involved in the development of scripts and slidetape instructional presentations, their performance of tasks relating to the full scope of ISD varies greatly, with only 14 tasks common to 50 percent or more of the group. Reference to background data reveals that this group is composed of personnel who have an average grade of E-5 and average considerably less than three years experience in the career ladder. In addition, 50 percent have been in their present job one year or less. The limited experience in ISD may be a contributing factor to the relatively narrow task assignments of these personnel.

Although involved in the ISD process, approximately 40 percent found their job dull or so-so and felt that their talents and training were used very little or not at all, indicating that, for many of these personnel, their participation in instructional systems development is considerably below their expectations and therefore quite frustrating.

E. Slidetape Instruction Developers. This group of 10 ISD personnel form a heterogeneous grouping of personnel who develop slidetape instruction. The tasks which were common to 50 percent or more of the members of this group were:

- Develop slidetape instructional presentations
- Develop scripts
- Develop story boards
- Develop plans for designing instructional systems
- Perform instructional edit of written, aural or graphic materials
- Develop criterion objectives
- Develop criterion subobjectives

Although a number of other tasks were performed by small percentages of the group, these tasks represent the primary functions performed.

As in the previously described group (Audiovisual Training Systems Developers), individuals vary greatly as to the performance of the various ISD tasks. Few of these individuals, however, performed tasks representing the full range of ISD. As in previous groups, job satisfaction was very low. Only half reported that their job was interesting. In addition 50 percent reported that their job utilized their talents little or not at all, while 60 percent felt that their training was used little or not at all.

These personnel worked in a variety of commands and at various levels of command, indicating that the low job satisfaction was not specifically a function of command or level of command assigned but rather a problem of ISD resource utilization across the Air Force.

F. Non-ISD Training Program Supervisors. The three individuals in this group are senior personnel. Two are E-8s with a PAFSC of 75193 working in DAFSC 75173 positions. Although some technical tasks are performed, their primary functions are supervision. Based on the supervisory and technical tasks performed, however, there was no indication that these personnel either performed or supervised functions which utilized Instructional Systems Development knowledges or skills. This was emphasized by the fact that only one of the three felt that his job was interesting. Two, however, felt that their job used their talents and training fairly well or better.

EDUCATION AND TRAINING SUPERINTENDENT  
DAFSC 75193

In addition to reviewing the jobs performed by 751X0, 751X2, and 751X3 personnel, it is also necessary to review the role of 9-skill level personnel. Since the three ladders combine at the 9-skill level, the current Superintendent jobs were examined to see if incumbents are performing a common job or if their tasks remain related to their previous specialties. If they perform a common job, this may be taken as evidence for combining all three specialties. However, if their functions relate more to specific Education, Training, or ISD tasks, then there is less of a case for merger (or, indeed, for a common 9-skill level).

Personnel in this skill level serve in a variety of supervisory and managerial jobs involving Training, Education, or Instructional Systems. As one would expect, a large number of these personnel supervise or serve in managerial capacities within OJT functions. Smaller numbers serve in the same capacity in Instructional Systems, while a very small number serve as supervisors or staff personnel in support of Education programs. Slightly over 40 percent of these personnel work in staff level positions at Air Force, major command, or numbered Air Force level. Most of the remainder serve as supervisors or staff at wing level, with only about 12 percent at squadron level. Although a few of the individuals at this skill level perform a number of technical tasks, the major emphasis is on supervision and management. Common tasks performed by 60 percent or more of this group include:

- Draft correspondence
- Determine work priorities
- Interpret policies, directives, or procedures for subordinates
- Write staff studies, surveys or special reports
- Plan work assignments
- Establish organizational policies, office instructions (OI), or standing operating procedures (SOP)
- Determine requirements for space, personnel, equipment or supplies
- Prepare APRs
- Plan briefings
- Counsel personnel on personal or military related problems

Although there were a number of supervisory and management tasks which were common to a majority of the superintendents, the jobs held varied considerably in terms of organizational level, type of function, number of tasks performed, etc. The following job titles illustrate the types of jobs and organizations in which these personnel are assigned.

<u>TITLE</u>	<u>ORGANIZATION</u>
NCOIC, Training Management Branch Chief	TFW Technical School
NCOIC, Training Division	HQ (Major Command)
Chief, Education and Training Division	HQ (Major Command)
Supt, Training Development Section	TT Group
NCOIC, Individual Training Branch	HQ (Major Command)
NCOIC, Dependent School Branch	CSG (overseas)

TITLEORGANIZATION

Education Superintendent

CSG (overseas)

Supt, Command JPG Development

SMES

Training Inspector

HQ (Major Command)

NCOIC, Services Div.

HQ (Major Command)

NCOIC, Professional Military Education

Wing

In many cases, experience in the specific Education, Training, or ISD specialty is almost a must. In other cases, specialized experience in one specialty would not prove of major value in job performance. Generally, however, jobs performed by 9-skill level personnel tend to support one of the specialties.

## SUMMARY OF BACKGROUND INFORMATION

Each USAF Job Inventory contains a background information section in which respondents report information about themselves and their job. The following is a summary of some of the more interesting information extracted from this section.

### Educational Level

As shown in Table 5, personnel in the Education specialty had considerably more education than members of the other two specialties. Education levels of Training personnel and Instructional Systems personnel appear to be rather low, considering the scope and complexity of these two specialties as outlined in AFR 39-1. Perhaps the performance goals and expectations are somewhat high since the majority of the individuals in these ladders have one year or less past high school education, yet they are expected to be Training program developers and advisers on all aspects of training.

TABLE 5

#### EDUCATION LEVEL OF 751XX SURVEY RESPONDENTS (PERCENT MEMBERS REPORTING)

YEARS OF EDUCATION	EDUCATION SPECIALISTS 751X0	TRAINING SPECIALISTS 751X2	INSTRUCTIONAL SYSTEMS SPECIALISTS 751X3	EDUCATION AND TRAINING SUPERINTENDENTS 75193
LESS THAN 12 YEARS	0	*	0	0
12 YEARS	20	53	32	15
13 YEARS	23	22	19	22
14 YEARS	23	14	22	32
15 YEARS	8	5	14	15
16 OR MORE YEARS	25	6	13	16
AVERAGE EDUCATION LEVEL	14.1	12.9	13.6	14.1

\* LESS THAN .5 PERCENT

### Level of Experience

On the average, personnel in these three specialties have considerable Air Force experience (see Table 6). Even those in the Education specialty average over 11 years in the service while personnel in the Training and Instructional systems specialties average over 13 years. Since most of the personnel in these three specialties have transferred from other career ladders, a more meaningful analysis of experience is the time that an individual has worked in the specialty. As shown in Table 7, over 50 percent of

the individuals in each of these specialties have less than four years experience in the specialty. In the Instructional Systems specialty, over 70 percent are in this category. This rather low level of experience very likely explains the relatively low number of tasks performed and limited scope of jobs performed by many of the instructional systems personnel, since the ISD system is quite complex and requires considerable experience and training to perform many of the functions. In addition, the low experience level may be a factor considered by managers of Training Development projects which results in ISD personnel being assigned to jobs which do not fulfill their expectations of ISD jobs, therefore job interest and utilization of talents and training are low.

TABLE 6

TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS)  
(PERCENT MEMBERS RESPONDING)

	<u>751X0</u>	<u>751X2</u>	<u>751X3</u>	<u>75193</u>
1-48 MONTHS	15	1	3	0
49-96 MONTHS	19	14	17	0
96+ MONTHS	66	85	80	100
AVERAGE MONTHS TAFMS	142	164	169	246

TABLE 7

TOTAL TIME IN CAREER FIELD  
(PERCENT MEMBERS RESPONDING)

	<u>751X0</u>	<u>751X2</u>	<u>751X3</u>	<u>75193</u>
1-24 MONTHS	36	35	27	6
25-48 MONTHS	20	27	44	3
49-72 MONTHS	12	19	15	9
73-96 MONTHS	10	12	10	8
97+ MONTHS	22	7	4	74
AVERAGE MONTHS TIFC	62	67	42	142



### Job Satisfaction

The information shown in Table 8 contrasts the relative job satisfaction within the three specialties and at the superintendent level. These data indicate that although personnel in the Education and Training specialties are not extremely happy with their jobs, they are considerably better satisfied than members of the Instructional Systems specialty. Of particular interest is the finding that ISD personnel have substantially lower percentages who feel their jobs make good use of their talents and training.

TABLE 8  
RELATIVE JOB SATISFACTION OF 751XX SURVEY RESPONDENTS

	PERCENT MEMBERS RESPONDING			
	EDUCATION 751X0 N=168	TRAINING 751X2 N=1,502	INSTRUCTIONAL SYSTEMS 751X3 N=101	SUPERIN- TENDENTS 75193 N=74
<u>I FIND MY JOB:</u>				
DULL	12	13	22	15
SO-SO	16	13	17	10
INTERESTING	69	71	59	74
NO RESPONSE	3	3	2	1
<u>MY JOB UTILIZES MY TALENTS:</u>				
NOT AT ALL OR VERY LITTLE	20	26	37	27
FAIRLY WELL OR BETTER	79	72	63	73
NO RESPONSE	1	2	0	0
<u>MY JOB UTILIZED MY TRAINING:</u>				
NOT AT ALL OR VERY LITTLE	19	25	38	35
FAIRLY WELL OR BETTER	79	73	59	65
NO RESPONSE	2	2	3	0
<u>REENLISTMENT INTENTIONS:</u>				
NO OR PROBABLY NO	29	38	33	51
YES OR PROBABLY YES	69	58	65	47
NO RESPONSE	2	4	2	2

## IMPLICATIONS

Overall, the job structure analysis of the 751X0, 751X2, and 751X3 career ladders found each to be a separate and distinct ladder. Personnel within each AFSC were generally performing a set of distinct tasks which overlapped very little with tasks being performed by other career ladder incumbents. Even at the 9-skill level, the overlap which does occur appears to be in general supervisory tasks common to all NCOs and not in the technical areas. Thus, no merger of the three ladders should be considered at this time.

Several problem areas, however, were identified which could impact on future military, manpower, utilization, and classification actions. Within the Training career ladder (AFS 751X2), only minor problems were identified. These related primarily to rather low job satisfaction levels for personnel working with MMICS at wing and squadron levels. On the other hand, it appears that the 751X0 career ladder is no longer a viable ladder for military personnel. Professional civilian counselors handle all educational counseling, while professional testing civilians are employed on a contract basis to administer the bulk of educational testing. As a result, the role of military 751X0 personnel has become one of providing administrative support for base education services offices.

Additionally, less than half of the 751X3 incumbents appear to be performing the full scope of ISD. Many members perform few, if any, ISD tasks. Others perform a few ISD tasks pertaining only to the writing of course materials and developing slidetape presentations. Many personnel appear to be assigned to low level writing jobs or to jobs out of the mainstream of Training Development where their impact on the training system design is minimal or nonexistent.

If many of these problems are to be resolved, several alternatives should be explored. In terms of the 751X0 ladder, a viable alternative would be to convert all 751X0 positions to civilian slots and delete the ladder from the Air Force classification system. A variation of this proposal would be to convert some positions to professional civilian slots and reclassify the remaining military positions as 702X0B slots to handle the administrative workload.

The problems with AFS 751X3, Instructional Systems, appears to be more severe. In this study, as in the previous OSR, there is a lack of a clearly defined role or consistent utilization policy. In some locations, ISD technicians are restricted to being learning center monitors; in other places they are tasked with doing more of an ISD job. However, we have not studied the ISD roles of officer, civilian, or other enlisted specialties in this study. Thus, the data in this OSR is not sufficient to show how ISD as a whole is operating in the Air Force. It is apparent, however, from what we can see of the jobs that enlisted ISD technicians perform that there needs to be a reexamination of how these personnel are selected, trained, and utilized. We strongly recommend that a Utilization and Training Workshop be convened to clarify the need for and role of 751X3 personnel in the Air Force. If the 751X3 is to remain a viable specialty, the total Air Force ISD effort may require more resources and facilities. It may not be possible to resolve the

issue of the enlisted specialty without also resolving the future of ISD as a whole (including questions of whether ISD should also be an officer specialty, whether ISD should be performed only by subject matter specialists, and whether ISD should perhaps be a Special Duty Identifier rather than a separate specialty). Only after these utilization and structure management questions have been resolved should the issues of selection prerequisite and training be considered.

Finally, the utilization of 9-skill level personnel needs to be evaluated. The Air Force objective of creating Superintendent and more recently the Chief Enlisted Manager (CEM) positions was to utilize these senior enlistment personnel in broader management jobs. However, data developed in this study on 75193 incumbents (CEM incumbents were not studied) reveals that many 75193 personnel are in rather specific NCOIC jobs relating to Education, Training, or ISD. Either the transition to management-oriented jobs (with the creation of the CEM positions) was not fully successful or these fields are still so technically-oriented that the merger of Education, Training, ISD, and CEM personnel may not have been appropriate.

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